Syllabus

Course Title: PHSC 102

Exams and Grading:
The grade that a student will receive will be a integrated assessment of the overall performance, participation and subject matter understanding of the student. This assessment will be based on the following guideline:

Weekly and Daily Quizzes, Homework, Participation……..……15 %
Exam I ……25 %
Exam II……25 %
Final Exam ……..25 %
Semester Project…..……10 %

The dates of the exams will be announced at least a week ahead of time.

The final exam is comprehensive and mandatory for all students.

Grading Scale:

A	$\geq$ 90.00
B	80.00 – 90.00
C	65.00 – 79.99
D	55.00 – 64.99
F	< 55.00

Homework
It is of fundamental importance that you do all the homework assigned. Physics is learnt through solving a lot of problems. You should read the numerous examples in the book and try to reproduce the solutions by yourself with the book closed. This should be part of your daily homework. Some of the homework problems will be solved in the student solution manual and other problems will be very similar to the solved ones. It is highly recommended that you get a copy of this solution manual. Also try to use in an active way all the other study aids offered, even on-line, by the authors of our textbook.

Webassign
Most of the homework from this course will be posted on the on-line homework system Webassign. Go to the website www.webassign.net to get accustomed with the system.

Username: initial first name + last name
Institution: mcneese
Password: social security number with dashes

Quizzes and Exams: You should study everyday the material that is presented in class and be always up-to-date. There will be unannounced Quizzes on a regularly basis to test your level of preparedness. Quizzes will be focus on the material just presented in the previous lesson. Exams will be announced at least one week ahead of time and they will be comprehensive of all the material covered up to that point by the class.

Semester Project
You will be required to work on 4-5 pages long report during the class semester. You can choose among a list of subject topics listed in the Semester Projects link on the course website.
You can also come up with a subject that relates to your area of study or personal interest. In this case you have to get the approval of your instructor before you start to work on this subject.
More information on the Semester Project is given at the web-site.

Make-Up Policy: If a student misses an examination, it is his/her responsibility to present an excuse to the course instructor within three days of his/her return to class and to arrange a date and place for the examination.

Academic Integrity: It is expected that all students will uphold the highest standards of academic integrity. Plagiarism, cheating, and academic fraud will be dealt with according to MSU policies and may result in failure of the either the assignment or the course. More information on McNeese State University's academic integrity policy can be found at www.mcneese.edu/integrity .

Attendance Policy: Regular class attendance is essential to success in this course. It is expected that you have made a commitment to attend a one hour lecture three times a week in addition to the lab. Attendance will be taken at the beginning of class. For students having unexcused absences totaling more than 10 % of the class meetings or a combination of excused and unexcused absences totaling more than 40% of the class meetings, the instructor reserves the right to drop a student for non-attendance (assign a grade of WN) or assign a grade of F, at his discretion. Students should not assume they will receive a drop for non-attendance.

Classroom Behavior: It is expected that all students will act in a manner to promote the best learning environment for all students. As such, offensive or demeaning comments (including racial, religious, ethnic, or sexist slurs) and disruptive behavior will not be permitted. Offending students will be asked to leave the class until such time as they can conform to this behavior policy.

Cell phones and beepers should be turned off before the beginning of class. Exceptions may be made by request to the instructor for special circumstances. In these special cases, these devices should be set into vibrate mode and any conversations should be taken outside the classroom discretely so as to avoid unnecessary disruption to the class.

Office Hours: (subject to change) MWF 9 – 10 AM, MF 11 AM – 12 PM, T-Th 9:25 – 10:40 AM and 12:15 – 1:30 PM; and by appointment.

TEXTBOOK: Chaisson-McMillian, **Astronomy Today**, 5th Edition, Pearson

Course Objectives

Upon completion of Physical Science 102, the student will be able to achieve the following with a 70% or better success rate:

1. Be able to describe the scientific method.
2. Through examples from the history of Astronomy the student will be able to differentiate between a hypothesis and a theory.
3. Be able to enumerate, name and describe the bodies of the solar system.
4. Be able to describe the basic process that powers the Sun and other stars.
5. Explain the basics of how stars are born, grow old, and die.
6. Describe what nebulae, supernovae, pulsars, X-ray bursters, and black holes are and understand where they fit in the life cycle of a star.
7. Describe and discuss what a galaxy is and what astronomers learn by studying galaxies.
8. Through applications as the measurement of the distance of a far away building simulate the astronomers use of angles to measure the size and position of objects in the sky.

9. Be able to use powers-of-ten notation.

10. Calculate distances of celestial objects using the units used to measure astronomical distances.

11. Use in practical examples the basic units of the SI system.

12. Appreciate how the study of astronomy has led to practical applications here on Earth as well as expanding our knowledge of the universe and its origins.

Expanded Course Outline:

I. Scientific Method and Measurement in Astronomy
Ancient Fascination towards the Sky (Myth, Legends, Ceremonies, etc.)
Versus Scientific Curiosity and Discovery.

II. The Sky
- A. Constellations: Big and Little Dipper, Orion, Andromeda…
- B. The Appearance of the Sky: Colors and Motion
- C. Size and Shape of Earth
- D. Seasons

III. The Moon
- A. Lunar Phases
- B. Eclipses
- C. Tides

IV. The Solar System
- A. Copernicus versus Tolomeus
- B. Kepler's Laws and Newton's Law of Motion
- C. Universal Law of Gravitation
- D. Light (How we know the Universe)
- E. Telescopes
- F. Comparative Planetology

V. Rocky Planets
- A. Earth as a Planet
- B. The Moon's Composition (it is not made of cheese…)
- C. Mercury and Venus
- D. Mars Now and in the Past (microlife on Mars?)

VI. Outer Bodies
- A. Gas Giant Planets
- B. Rings around Planets
- C. Moons around Planets
- D. Pluto: Planet or Large Kuiper Belt Object?
- E. Comets

VII. Extraterrestrial Life
- A. Formation of the Solar System
- B. Recent Discoveries about Extra Solar Planets
- C. Exobiology
- D. Alien Life

VIII. The rest of the Universe
- A. Our Sun
- B. Stars

C. Galaxies
D. Hubble Law
E. Age and Fate of the Universe
F. Great new Cosmology Discoveries

Diversity and Sexual Harassment Policy: Students should visit the MSU webpage at www.mcneese.edu/policy/diversity/htm for information about diversity and sexual harassment policies and procedures.

Students with Disabilities:
"Any student with a disability is encouraged to contact the Office of Services for Students with Disabilities in Kaufman Hall, Room 119, (337) 475-5916. It is each student's responsibility to register with the Office of Services for Students with Disabilities when requesting a reasonable accommodation."